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### **DETAILED ACTION**

1. This Office Action is in response to an AMENDMENT entered March 3, 2011 for the patent application 10/594774 filed on September 29, 2006.
2. The Office Actions of November 10, 2009, May 21, 2010 and December 6, 2010 are fully incorporated into this Office Action by reference.

### ***Status of Claims***

3. Claims 1-6 and 9-18 are pending in this application.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:  
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schrader et al. (U.S. PGPub 2002/0166123 A1, referred to as **Schrader**) in view of Nejime et al. (U.S. Patent 7,272,843, referred to as **Nejime**) in further view of Dureau (U.S. Patent 7,634,795, referred to as **Dureau**), Paragraph 20. below applies.

### **Claim 1**

**Schrader** teaches:

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An accumulation display device comprising:

a reception unit that receives a currently broadcasted program content, index information associating a currently broadcasted program content with an index and specifying a scene of the program and trigger information including mode information for special reproduction of the program content and constituting metadata with the index information (**Schrader ¶¶ 0055-0056, 0120**; Examiner's Note (EN): Client receiver receives content with index and metadata with triggering information. Paragraph 20. below applies);

an accumulation unit that accumulates the program content, the index information and the trigger information (**Schrader ¶¶ 0054, 0120**; EN: Content, index, and information about the triggering event are recorded. Paragraph 20. below applies);

a main display unit receiving and displaying the input of the program content received by the reception unit (**Schrader ¶ 0035**; EN: Video display divided into various display areas including a navigation display portion and a program display portion. Paragraph 20. below applies);

a metadata interpretation unit that interprets the index information and the trigger information of the currently broadcasted or the accumulated program content and outputs mode information for special reproduction (**Schrader ¶ 0134**; EN: Metadata unit includes playback information for special inquiries. Paragraph 20. below applies); and

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an accumulated image processing unit extracting at least a part of the program content based on the mode information from the trigger information, restructures the program content extracted based on the mode information, restructures the program content extracted based on the mode information (**Schrader** ¶¶ 0066-0067; EN: Highlight logs of the content are used by the client system for assembling the content according to specific playback modes. Paragraph 20. below applies);

**Schrader** does not explicitly disclose:

an accumulated image processing unit connected with a mobile data terminal functioning as a sub reception and display unit, and outputs the restructured program content;

the index information includes a program ID for identifying a program corresponding to the index information, an ID for identifying the index information start time data of the corresponding program, and finish time data of the corresponding program.

the accumulated image processing unit outputs the restructured program content to the mobile data terminal, and displays the restructured program content on the mobile data terminal in a manner that the currently broadcasted original program content received by the reception unit is displayed in parallel on the main display unit.

**Nejime** teaches:

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the index information includes a program ID for identifying a program corresponding to the index information, an ID for identifying the index information start time data of the corresponding program, and finish time data of the corresponding program (**Nejime** C6:6-41; EN: Start and end time in auxiliary information).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** with the program ID as taught by **Nejime** for the purpose of providing making it possible to play back the program in a mode interlocked with auxiliary information with the auxiliary information used as a supplement to broadcast information.

**Schrader** in view of **Nejime** does not explicitly disclose:

an accumulated image processing unit connected with a mobile data terminal functioning as a sub reception and display unit, and outputs the restructured program content;

the accumulated image processing unit outputs the restructured program content to the mobile data terminal, and displays the restructured program content on the mobile data terminal in a manner that the currently broadcasted original program content received by the reception unit is displayed in parallel on the main display unit.

**Dureau** teaches:

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an accumulated image processing unit connected with a mobile data terminal functioning as a sub reception and display unit, and outputs the restructured program content (**Dureau** C8:18-36; EN: Broadcast television audio/video signal transcoded and output to handheld device);

the accumulated image processing unit outputs the restructured program content to the mobile data terminal, and displays the restructured program content on the mobile data terminal in a manner that the currently broadcasted original program content received by the reception unit is displayed in parallel on the main display unit (**Dureau** C8:18-36; EN: Broadcast television audio/video signal transcoded and output to handheld device).

**Rationale:**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** in view of **Nejime** with the mobile data terminal as taught by **Dureau** for the purpose of providing a receiver as a proxy to transcode data and provide for intercommunication among secondary devices.

**Claim 2****Schrader** teaches:

wherein the trigger information includes mode information for performing special reproduction of **at least anyone** of interlocked reproduction, replay reproduction, highlight reproduction, and follow reproduction of a currently

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viewed program content (**Schrader** ¶ 100; EN: Trigger notifies of extended video recording. Paragraph 20. below applies).

### **Claim 3**

**Schrader** teaches:

further comprising a display unit that displays the currently broadcasted or the accumulated program content and the mode information for special reproduction (**Schrader** Fig. 5 el. 122; ¶ 0077; EN; Display device).

### ***Claim Rejections - 35 USC § 103***

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of Shteyn (U.S. PGPub 2002/0144007 A1, referred to as **Shteyn**), Paragraph 20. below applies.

### **Claim 4**

**Schrader** teaches:

wherein the accumulated image processing unit extracts at least a part of the accumulated program content based on trigger information received after the request or the latest trigger information of the request, and outputs the restructured program content (**Schrader** ¶¶ 0066-0067; EN: Highlight logs of the content are used by the client system for assembling the content according to specific playback modes. Paragraph 20. below applies).

**Schrader** et al. does not explicitly disclose:

according to a request of mode information for special reproduction from a sub-display device receiving a restructured program content.

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**Shteyn** teaches:

according to a request of mode information for special reproduction from a sub-display device receiving a restructured program content (**Shteyn** ¶ 0031; EN: Information in the meta-data enables the user to receive information from the set-top box that has been received from a broadcaster. Examiner interprets that there is additional information in meta-data regarding structure of information to be sent to user. Paragraph 20. below applies).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the meta-data information as taught by **Shteyn** for the purpose of providing information content associated with the network.

***Claim Rejections - 35 USC § 103***

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of **Shteyn** in further view of Kinno et al. (U.S. PGPub 2003/0154217 A1, referred to as **Kinno**), Paragraph 20. below applies.

**Claim 5**

**Schrader** et al. does not explicitly disclose:

a sub-display device management unit that manages terminal information including a terminal ID and performance of at least one mobile data terminal receiving a restructured program content Hamano,

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wherein the accumulated image processing unit processes and outputs a program content according to performance of each sub-display device.

**Shteyn** teaches:

wherein the accumulated image processing unit processes and outputs a program content according to performance of each sub-display device (**Shteyn** ¶ 0061; EN: Each device may be different).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the specific client configuration as taught by **Shteyn** for the purpose of providing output in accordance with the user's preferences and the preferred service providers.

**Schrader** et al. does not explicitly disclose:

a sub-display device management unit that manages terminal information including a terminal ID and performance of at least one sub-display device receiving a restructured program content.

**Kinno** teaches:

a sub-display device management unit that manages terminal information including a terminal ID and performance of at least one mobile data terminal receiving a restructured program content (**Kinno** Fig. 18, el. 1501; ¶¶ 0025, 0126-0131; EN: Examiner interprets the user identification as the terminal ID and mobile networks are included. Examiner interprets that mobile data terminals are included. Paragraph 20. below applies),



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Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the management unit as taught by **Kinno** for the purpose of providing a process regarding the information delivery system.

***Claim Rejections - 35 USC § 103***

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Dimitrova** in view of **Dureau**.

**Claim 6**

**Dimitrova** teaches:

A mobile data terminal comprising:

an input unit that receives an input from a user (**Dimitrova** ¶ 0024; EN: User

input interface which receives input control signals from an input device);

a transmission unit that transmits user select information received by the input

unit to the accumulation display device (**Dimitrova** ¶ 0030; EN: Handheld

device may be used to control the operation of the residential gateway

system);

a reception unit that receives a program content restructured based on the user

select information from the accumulation display device (**Dimitrova** ¶¶

0025-0027, 0030; EN: Handheld device may be used to control the

operation of the residential gateway system); and

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a display unit connected with the reception unit (**Dimitrova** ¶ 0026; EN: Display screen);

**Dimitrova** does not explicitly disclose:

wherein the reception unit receives restructured program content from the accumulation display device, and the display unit of the mobile data terminal displays the received and restructured program content in a manner that an original program content received by the accumulation display is displayed in parallel on the main display unit of the accumulation display device

**Dureau** teaches:

wherein the reception unit receives restructured program content from the accumulation display device, and the display unit of the mobile data terminal displays the received and restructured program content in a manner that an original program content received by the accumulation display is displayed in parallel on the main display unit of the accumulation display device (**Dureau** C8:18-36; EN: Broadcast television audio/video signal transcoded and output to handheld device).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Dimitrova** with the mobile data terminal as taught by **Dureau** for the purpose of providing a receiver as a proxy to transcode data and provide for intercommunication among secondary devices.

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***Claim Rejections - 35 USC § 103***

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of **Kinno**.

**Claim 9**

**Schrader** et al. does not explicitly disclose:

wherein the index information further includes meaning information describing contents of a program content specified by an index at a keyword level.

**Kinno** teaches:

wherein the index information further includes meaning information describing contents of a program content specified by an index at a keyword level (**Kinno ¶ 0021**).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the description as taught by **Kinno** for the purpose of providing information for the client.

***Claim Rejections - 35 USC § 103***

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of **Shteyn** in further view of **Kinno** in further view of Gardere et al. (U.S. Patent 6,678,332, referred to as **Gardere**), Paragraph 20. below applies.

**Claim 10**

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**Schrader** et al. does not explicitly disclose:

mode information for identifying the trigger information.

start time specifying an extracted scene, and extraction time, thereby specifying  
timing transmitting at least a part of the program content to the mobile  
data terminal;

wherein the trigger information includes one or more of a program ID for  
identifying a program corresponding to the trigger information.

**Shteyn** teaches:

mode information for identifying the trigger information (**Shteyn** ¶ 0031),

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the  
invention was made to modify the teachings of **Schrader** et al. with the meta-  
data information as taught by **Shteyn** for the purpose of providing information  
content associated with the network.

**Schrader** et al. does not explicitly disclose:

start time specifying an extracted scene, and extraction time, thereby specifying  
timing transmitting at least a part of the program content to the mobile  
data terminal,

wherein the trigger information includes one or more of a program ID for  
identifying a program corresponding to the trigger information.

**Kinno** teaches:

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start time specifying an extracted scene, and extraction time, thereby specifying timing transmitting at least a part of the program content to the mobile data terminal (**Kinno** ¶¶ 0089-0092).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the times as taught by **Kinno** for the purpose of providing verification of the sequence information according to a request of the controlling media received from client terminal.

**Schrader** et al. does not explicitly disclose:

wherein the trigger information includes one or more of a program ID for identifying a program corresponding to the trigger information.

**Gardere** teaches:

wherein the trigger information includes one or more of a program ID for identifying a program corresponding to the trigger information (**Gardere** C26:23-30; EN: Paragraph 20. below applies).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the program ID as taught by **Gardere** for the purpose of providing program information identification numbers to allow the appropriate viewing according to the authorization of the client.

***Claim Rejections - 35 USC § 103***

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of **Shteyn** in further view of **Kinno** in further view of **Gardere** in further view of Zander et al. (U.S. Patent 6,360,218, referred to as **Zander**), Paragraph 20. below applies.

**Claim 11**

**Schrader** et al. does not explicitly disclose:

mode information for identifying the trigger information;  
thereby specifying timing transmitting at least a part of the program content to the  
mobile data terminal;  
wherein the trigger information includes a program ID for identifying a program  
corresponding to the trigger information;  
a specified index ID for identifying specified index information.

**Shteyn** teaches:

mode information for identifying the trigger information (**Shteyn** ¶ 0031; EN:  
Information in the meta-data enables the user to receive information from  
the set-top box that has been received from a broadcaster. Examiner  
interprets that there is additional information in meta-data regarding  
structure of information to be sent to user. Paragraph 20. below applies),

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the  
invention was made to modify the teachings of **Schrader** et al. with the meta-

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data information as taught by **Shteyn** for the purpose of providing information content associated with the network.

**Schrader** et al. does not explicitly disclose:

thereby specifying timing transmitting at least a part of the program content to the mobile data terminal.

**Kinno** teaches:

thereby specifying timing transmitting at least a part of the program content to the mobile data terminal (**Kinno** ¶ 0010; EN: Start time and Finish time retrieved).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the timeframe as taught by **Kinno** for the purpose of providing information to the client for appropriate scene retrieval.

**Schrader** et al. does not explicitly disclose:

wherein the trigger information includes a program ID for identifying a program corresponding to the trigger information.

**Gardere** teaches:

wherein the trigger information includes a program ID for identifying a program corresponding to the trigger information (**Gardere** C26:23-30; EN: The clip identification attributes are analogous to the attributes in the metadata index attributes. Paragraph 20. below applies).

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Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the program ID as taught by **Gardere** for the purpose of providing identification of the components in the stream.

**Schrader** et al. does not explicitly disclose:

a specified index ID for identifying specified index information.

**Zander** teaches:

a specified index ID for identifying specified index information (**Zander** C8:3-5; EN: Record Identifier),

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the index number as taught by **Zander** for the purpose of providing an ordered index which can be used by the client.

### ***Claim Rejections - 35 USC § 103***

12. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of **Shteyn** in further view of **Kinno** in further view of **Gardere** in further view of **Zander** in further view of Munetsugu et al. (U.S. Patent 7,134,074, referred to as **Munetsugu**).

#### **Claim 12**

**Schrader** et al. does not explicitly disclose:



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wherein the trigger information further includes meaning information describing a program content associated with index information at a keyword level; grading index information of weight of the meaning information according to a degree of importance of the program content.

**Kinno** teaches:

wherein the trigger information further includes meaning information describing a program content associated with index information at a keyword level (**Kinno** ¶ 0021),

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the keywords as taught by **Kinno** for the purpose of providing information for the client.

**Schrader** et al. does not explicitly disclose:

grading index information of weight of the meaning information according to a degree of importance of the program content.

**Munetsugu** teaches:

grading index information of weight of the meaning information according to a degree of importance of the program content (**Munetsugu** C5:49-C6:22; EN: Importance of partial program taken into account during restructuring).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the

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Importance as taught by **Munetsugu** for the purpose of providing importance information based on criteria concerning the client that is decided at the broadcaster.

### **Claim 15**

**Schrader** teaches:

wherein the trigger information includes accumulation instruction information instructing accumulation of the corresponding program content (**Schrader** ¶ 0128; EN: Data alert is analogous with instruction to link additional programming).

### ***Claim Rejections - 35 USC § 103***

13. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of Hoshino et al. (U.S. PGPub 2004/0249861 A1, referred to as **Hoshino**) in further view of **Munetsugu**.

### **Claim 13**

**Schrader** et al. does not explicitly disclose:

wherein the accumulated image processing unit adds, to the restructured program content, superimpose information displayed as an image separate from the program content, and changes and restructures time of each partial program content at restructuring the partial program content based on meaning information included in the trigger information and the index information

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**Hoshino** teaches:

wherein the accumulated image processing unit adds, to the restructured program content, superimpose information displayed as an image separate from the program content (**Hoshino** ¶¶ 0207-208; EN: Metadata converted to video data for superimposition).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the metadata as taught by **Hoshino** for the purpose of providing synthesized video signal for the client.

**Schrader** et al. does not explicitly disclose:

changes and restructures time of each partial program content at restructuring the partial program content based on meaning information included in the trigger information and the index information.

**Munetsugu** teaches:

changes and restructures time of each partial program content at restructuring the partial program content based on meaning information included in the trigger information and the index information (**Munetsugu** C5:49-C6:22; EN: Importance of partial program taken into account during restructuring).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the

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importance as taught by **Munetsugu** for the purpose of providing importance information based on criteria concerning the client that is decided at the broadcaster.

**Claim 14**

**Schrader** et al. does not explicitly disclose:

wherein the superimpose information is generated using any of meaning information of trigger information, a trigger name, and meaning information of index information.

**Hoshino** teaches:

wherein the superimpose information is generated using any of meaning information of trigger information, a trigger name, and meaning information of index information (**Hoshino** ¶¶ 0207-208; EN: Metadata converted to video data for superimposition).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the metadata as taught by **Hoshino** for the purpose of providing synthesized video signal for the client.

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14. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of Dimitrova et al. (U.S. PGPub

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2006/0041915 A1, referred to as **Dimitrova**) in further view of **Dureau**, Paragraph 20.

below applies.

### **Claim 16**

**Schrader** teaches:

An interlocked display system comprising  
an accumulation display device receiving and displaying a currently broadcasted

program content as a main reception and display terminal (**Schrader ¶¶**

0055-0056, 0120; EN: Client receiver receives content with index and

metadata with triggering information. Paragraph 20. below applies);

the accumulation display device including:

a reception unit that receives a currently broadcasted program content, index

information associating a currently broadcasted program content with an

index and specifying a scene of the program and trigger information

including mode information for special reproduction of the program content

and constituting metadata with the index information (**Schrader ¶¶** 0055-

0056, 0120; EN: Client receiver receive content with index and metadata

with triggering information. Paragraph 20. below applies);

an accumulation unit that accumulates the program content, the index

information and the trigger information (**Schrader ¶¶** 0054, 0120; EN:

content, index, and information about the triggering event are recorded.

Paragraph 20. below applies);

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a main display unit receiving and displaying the input of the program content received by the reception unit (**Schrader ¶ 0035**; EN: video display divided into various display areas including a navigation display portion and a program display portion. Paragraph 20. below applies);

a metadata interpretation unit that interprets the index information and the trigger information of the currently broadcasted or the accumulated program content and outputs mode information for special reproduction (**Schrader ¶ 0134**; EN: Metadata unit include playback information for special inquiries. Paragraph 20. below applies); and

the accumulated image processing unit extracting at least a part of the program content from the index information based on contents of the trigger information, restructures the program content extracted based on the mode information (**Schrader ¶ 100**; EN: Trigger notifies recorder to record event without user intervention. Paragraph 20. below applies).

**Schrader** does not explicitly disclose:

the accumulation display device including:

the accumulated image processing unit connected with the mobile data terminal, and outputs the restructured program content to the mobile data terminal;

the index information includes a program ID for identifying a program corresponding to the index information, an ID for identifying the index information, starttime data of the corresponding program, and finishtime data of the corresponding program,

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a mobile data terminal connected with the accumulation display device and receiving a program content restructured for special reproduction from the accumulation display device and displaying the restructured program content as a sub reception and display terminal,

the mobile data terminal including:

an input unit that receives an input from a user;

a transmission unit that transmits user select information received by the input unit to the accumulation display device;

a reception unit that receives a program content restructured based on the user select information from the accumulation display device; and

a display unit connected with the reception unit;

wherein, between the accumulation display device and the mobile data terminal,

the accumulated image processing unit of the accumulation display device extracts at least a part of the program content from the index information based on contents of the trigger information, restructures the program content extracted based on the mode information, and outputs the restructured program content to the mobile data terminal; and

the reception unit of the mobile data terminal receives restructured program content from the accumulation display device, and the display unit of the mobile data terminal displays the received and restructured program content in a manner that the currently broadcasted original program

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content received by the accumulation display is displayed in parallel on the main display unit of the accumulation display device.

**Nejime** teaches:

the index information includes a program ID for identifying a program corresponding to the index information, an ID for identifying the index information, starttime data of the corresponding program, and finishtime data of the corresponding program (**Nejime** C6:6-41; EN: Start and end time in auxiliary information),

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** with the program ID as taught by **Nejime** for the purpose of providing making it possible to play back the program in a mode interlocked with auxiliary information with the auxiliary information used as a supplement to broadcast information.

**Schrader** in view of **Nejime** does not explicitly disclose:

a mobile data terminal including:

an input unit that receives an input from a user.

a transmission unit that transmits user select information received by the input unit to the accumulation display device;

a reception unit that receives a program content restructured based on the user select information from the accumulation display device; and

a display unit connected with the reception unit;



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wherein, between the accumulation display device and the mobile data terminal, outputs the restructured program content to the mobile data terminal; and wherein, between the accumulation display device and the mobile data terminal, the accumulated image processing unit of the accumulation display device extracts at least a part of the program content from the index information based on contents of the trigger information, restructures the program content extracted based on the mode information, and outputs the restructured program content to the mobile data terminal; the reception unit of the mobile data terminal receives restructured program content from the accumulation display device, and the display unit of the mobile data terminal displays the received and restructured program content in a manner that the currently broadcasted original program content received by the accumulation display is displayed in parallel on the main display unit of the accumulation display device.

**Dimitrova** teaches:

a mobile data terminal including:

an input unit that receives an input from a user (**Dimitrova** ¶¶ 0024, 0030; EN: Keyboard).

a transmission unit that transmits user select information received by the input unit to the accumulation display device (**Dimitrova** ¶¶ 0024, 0030; EN: Handheld device connected to gateway via network);

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a reception unit that receives a program content restructured based on the user

select information from the accumulation display device (**Dimitrova ¶¶**

0025-0027, 0030; EN: Handheld device may be used to control the

operation of the residential gateway system); and

a display unit connected with the reception unit (**Dimitrova ¶** 0026; EN: Display screen);

wherein, between the accumulation display device and the mobile data terminal,

the accumulated image processing unit of the accumulation display device

extracts at least a part of the program content from the index information

based on contents of the trigger information, restructures the program

content extracted based on the mode information outputs the restructured

program content to the mobile data terminal (**Dimitrova ¶¶** 0027-0030;

EN: Display modes triggered by the handheld device. Paragraph 20.

below applies);

#### Rationale:

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the teachings of **Schrader** in view of **Nejime** with

the mobile data terminal as taught by **Dimitrova** for the purpose of providing a

residential gateway system having a handheld controller for communicating with

and controlling the residential gateway system, in which the communication

channel between the residential gateway system and the handheld controller is

used efficiently.

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**Schrader** in view of **Nejime** in further view of **Dimitrova** does not explicitly disclose:

the accumulation display device including:

the accumulated image processing unit connected with the mobile data terminal,  
and outputs the restructured program content to the mobile data terminal;

a mobile data terminal connected with the accumulation display device and  
receiving a program content restructured for special reproduction from the  
accumulation display device and displaying the restructured program  
content as a sub reception and display terminal,

the reception unit of the mobile data terminal receives restructured program  
content from the accumulation display device, and the display unit of the  
mobile data terminal displays the received and restructured program  
content in a manner that the currently broadcasted original program  
content received by the accumulation display is displayed in parallel on  
the main display unit of the accumulation display device.

**Dureau** teaches:

the accumulation display device including:

the accumulated image processing unit connected with the mobile data terminal,  
and outputs the restructured program content to the mobile data terminal  
(**Dureau** C8:18-36; EN: Broadcast television audio/video signal  
transcoded and output to handheld device);

a mobile data terminal connected with the accumulation display device and  
receiving a program content restructured for special reproduction from the

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accumulation display device and displaying the restructured program content as a sub reception and display terminal (**Dureau** C8:18-36; EN: Broadcast television audio/video signal transcoded and output to handheld device),

the reception unit of the mobile data terminal receives restructured program content from the accumulation display device, and the display unit of the mobile data terminal displays the received and restructured program content in a manner that the currently broadcasted original program content received by the accumulation display is displayed in parallel on the main display unit of the accumulation display device (**Dureau** C8:18-36; EN: Broadcast television audio/video signal transcoded and output to handheld device).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** in view of **Nejime** in further view of **Dimitrova** with the program content displayed in parallel as taught by **Dureau** for the purpose of providing of providing a receiver as a proxy to transcode data and provide for intercommunication among secondary devices.

**Claim 17**

**Schrader** et al. does not explicitly disclose:

wherein the accumulation display device as a server transmits a restructured program content to the mobile data terminal via a network.

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**Dimitrova** teaches:

wherein the accumulation display device as a server transmits a restructured program content to the mobile data terminal via a network (**Dimitrova** ¶¶ 0024, 0030; EN: Handheld device connected to gateway via network).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** in view of **Nejime** in further view of **Dureau** with the mobile data terminal as taught by **Dimitrova** for the purpose of providing a residential gateway system having a handheld controller for communicating with and controlling the residential gateway system, in which the communication channel between the residential gateway system and the handheld controller is used efficiently.

***Claim Rejections - 35 USC § 103***

15. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Dimitrova**, Paragraph 20. below applies.

**Claim 18**

**Schrader** teaches:

An interlocked display method using an accumulation display device reproducing a currently broadcasted program content and a mobile data terminal interlocking with the accumulation display device to perform special reproduction of the program content, the accumulation display device comprising the steps of:

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receiving the currently broadcasted program content, index information  
associating a currently broadcasted program content with an index and  
specifying a scene of the program and trigger information including mode  
information for special reproduction of the program content and  
constituting metadata with the index information (**Schrader ¶¶** 0055-0056,  
0120; EN: Client receiver receives content with index and metadata with  
triggering information. Paragraph 20. below applies);  
accumulating the program content, the index information and the trigger  
information (**Schrader ¶¶** 0054, 0120; EN: Content, index, and information  
about the triggering event is recorded. Paragraph 20. below applies);  
displaying the received program content (**Schrader ¶** 0035; EN: Video display  
divided into various display areas including a navigation display portion  
and a program display portion. Paragraph 20. below applies);  
extracting at least a part of the accumulated program content associated with the  
index information based on mode information from the trigger information,  
restructuring the program content extracted based on the mode  
information, (**Schrader ¶¶** 0066-0067; EN: Highlight logs of the content  
are used by the client system for assembling the content according to  
specific playback modes. Paragraph 20. below applies),

**Schrader** does not explicitly disclose:

outputting the restructured program content to the mobile data terminal,

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wherein, in the step of outputting the restructured program content to the mobile data terminal, extracting at least a part of the program content from the index information based on contents of the trigger information, restructuring the program content extracted based on the mode information, and outputting the restructured program content to the mobile data terminal,

the data terminal comprising the steps of:

receiving the program content restructured from the accumulation display device;  
and

displaying the received and restructured program content in a manner that the currently broadcasted original program content received by the accumulation display is displayed in parallel on a main display unit of the accumulation display device.

**Dimitrova** teaches:

outputting the restructured program content to the mobile data terminal

(**Dimitrova** ¶¶ 0025-0026; EN: Broadcast video transcoded and output to handheld device. Examiner interprets that example of HDTV is broadcast in to gateway receiver and handheld device. Paragraph 20. below applies),

wherein, in the step of outputting the restructured program content to the mobile data terminal, extracting at least a part of the program content from the index information based on contents of the trigger information,

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restructuring the program content extracted based on the mode information, and outputting the restructured program content to the mobile data terminal (**Dimitrova** ¶¶ 0027-0030; EN: Display modes triggered by the handheld device. Paragraph 20. below applies),  
the data terminal comprising the steps of:

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** with the mobile data terminal as taught by **Dimitrova** for the purpose of providing a residential gateway system having a handheld controller for communicating with and controlling the residential gateway system, in which the communication channel between the residential gateway system and the handheld controller is used efficiently.

**Schrader** in view of **Dimitrova** does not explicitly disclose:

receiving the program content restructured from the accumulation display device;  
and  
displaying the received and restructured program content in a manner that the currently broadcasted original program content received by the accumulation display is displayed in parallel on a main display unit of the accumulation display device.

**Dureau** teaches:



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receiving the program content restructured from the accumulation display device  
(**Dureau** C8:18-36; EN: Broadcast television audio/video signal  
transcoded and output to handheld device); and  
displaying the received and restructured program content in a manner that the  
currently broadcasted original program content received by the  
accumulation display is displayed in parallel on a main display unit of the  
accumulation display device (**Dureau** C8:18-36; EN: Broadcast television  
audio/video signal transcoded and output to handheld device).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the  
invention was made to modify the teachings of **Schrader** in view of **Dimitrova**  
with the mobile data terminal as taught by **Dureau** for the purpose of providing a  
receiver as a proxy to transcode data and provide for intercommunication among  
secondary devices.

***Response to Arguments***

16. In reference to Applicant's argument:

Specifically, in col. 30, Dimitrova suggests that the broadcast signal is  
able to be displayed on either the main display or the handheld display (not both)  
(“once the program is selected, the user may then have the selected video  
program displayed on the television receiver 14 or displayed on the display  
screen 52 of the handheld controller 50”). Thus, Dimitrova’s broadcast signal is  
not reconstructed (i.e., it is the original broadcast signal relayed to the handheld  
device) and furthermore, it is not displayed simultaneously on both the TV display  
and the handheld controller display (one or the other is selected to display the  
broadcasted program). Thus, Applicants respectfully disagree with the  
Examiner's interpretation of Dimitrova.

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Applicants' claim 1 is different than the art of record because a broadcast program is reconstructed and then displayed on a mobile display at the same time the original broadcast program is displayed on a main display device ("... an accumulated image processing unit connected with a mobile data terminal functioning as a sub reception and display unit, and extracting at least a part of the accumulated program content based on the mode information from the trigger information, restructures the program content extracted based on the mode information, and outputs the restructured program content... the accumulated image processing unit further... outputs the restructured program content to the mobile data terminal, and displays the restructured program content on the mobile data terminal in a manner that the currently broadcasted original program content received by the reception unit is displayed in parallel on the main display unit").

As shown in Applicants' Fig. 1, main display device 1 has an image processing unit 102 and accumulated image processing unit 104. Image processing unit 102 processes the received broadcast program and displays the original program on display unit 107. Accumulated image processing unit 104 also receives the broadcasted program. Accumulated image processing unit 104, however, reconstructs the broadcast program based on trigger/mode information included in the broadcast. This reconstructed broadcasted program is then transmitted to a mobile terminal 110 where it is displayed on display unit 109. Thus, the original broadcast program is displayed on display unit 107 at the same time as a reconstructed broadcast program is displayed in mobile display unit 109.

#### Examiner's Response:

Applicant's arguments have been fully considered and are persuasive.

Therefore, the rejections of claims 1, 6, 16 and 18 have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as follows:

Claim 1 in view of Schrader et al. (U.S. PGPub 2002/0166123 A1) and Nejime et al. (U.S. Patent 7,272,843) and Dureau (U.S. Patent 7,634,795).

Claim 6 in view of Dimitrova et al. (U.S. PGPub 2006/0041915 A1) and Dureau (U.S. Patent 7,634,795).

Claim 16 in view of Schrader et al. (U.S. PGPub 2002/0166123 A1) and Nejime et al. (U.S. Patent 7,272,843) and Dimitrova et al. (U.S. PGPub 2006/0041915 A1) and Dureau (U.S. Patent 7,634,795).

Claim 18 in view of Schrader et al. (U.S. PGPub 2002/0166123 A1) and Dimitrova et al. (U.S. PGPub 2006/0041915 A1) and Dureau (U.S. Patent 7,634,795).

### ***Examination Considerations***

17. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim should not be read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969) (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

18. Examiner's Notes are provided with the cited references to prior art to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

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19. Unless otherwise annotated, Examiner's statements are to be interpreted in reference to that of one of ordinary skill in the art. Statements made in reference to the condition of the disclosure constitute, on the face of it, the basis and such would be obvious to one of ordinary skill in the art, establishing thereby an inherent prima facie statement.

20. Examiner's Opinion: ¶¶ 17.-19. apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

### ***Conclusion***

21. Claims 1-6 and 9-18 are rejected.

### ***Correspondence Information***

22. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to MARY ANNE KAY whose telephone number is (571)270-5677, FAX (571)270-6677, e-mail mary.kay@uspto.gov. The Examiner can normally be reached on Monday -Thursday and every other Friday, 8:00 AM - 5:00 PM, EST.

As detailed in MPEP 502.03, communications via Internet e-mail are at the discretion of the Applicant. Without a written authorization by Applicant recorded in the

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Applicant's file, the USPTO will not respond via e-mail to any Internet correspondence which contains information subject to the confidentiality requirement as set forth in 35 U.S.C. 122. A paper copy of such correspondence will be placed in the appropriate patent application. The following is an example authorization which may be used by the Applicant:

Notwithstanding the lack of security with Internet Communications, I hereby authorize the USPTO to communicate with me concerning any subject matter related to the instant application by e-mail. I understand that a copy of such communications related to formal submissions will be made of record in the applications file.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Joseph Hirl can be reached on (571)272-3685. Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,  
Washington, D. C. 20231;

Hand delivered to:

Receptionist,  
Customer Service Window,  
Randolph Building,  
401 Dulany Street,  
Alexandria, Virginia 22313,  
(located on the first floor of the south side of the Randolph Building);

or faxed to:

(571)273-8300 (for formal communications intended for entry).

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Mary Anne Kay  
Examiner

/JOSEPH P. HIRL/  
Supervisory Patent Examiner, Art Unit 2426  
May 23, 2011